

EPA Region 5 Records Ctr.



255109

**SITE ASSESSMENT REPORT
FOR
ORBITRON
DELPHOS, ALLEN COUNTY, OHIO
TDD: T05-9407-003
PAN: EOH1042SAA
DOCUMENT CONTROL NUMBER: TAT-05-23-04023**



ecology and environment, inc.

International Specialists in the Environment

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AUGUST 15, 1994

Prepared for:

Gail Nabasny
Deputy Project Officer
Emergency Support Section
U.S. EPA - Region V

Contract Number 68-WO-0037

Prepared by:	<u><i>[Signature]</i></u>	Date:	<u>8/15/94</u>
Reviewed by:	<u><i>[Signature]</i></u>	Date:	<u>8/15/94</u>
Approved by:	<u><i>[Signature]</i></u>	Date:	<u>8-15-94</u>



ecology and environment, inc.

6777 ENGLE ROAD, CLEVELAND, OHIO 44130, TEL. (216) 243-3330
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1.0 INTRODUCTION

The Ecology and Environment, Inc. (E & E) Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (U.S. EPA) under Technical Directive Document (TDD) T05-9407-003 to complete site assessment activities at the Orbitron Industries (Orbitron) site in Delphos, Allen County, Ohio. The site assessment included a site reconnaissance, sampling of drums, and an evaluation of the potential threat to human health and the environment. Additional TAT activities conducted under this TDD included the preparation of a site health and safety plan, air monitoring, and photo and video documentation of the site. Upon the request of U.S. EPA On-Scene Coordinator (OSC) Steve Renninger, the TAT conducted site assessment activities at the Orbitron site on July 19, 1994.

2.0 BACKGROUND

2.1 Site Description

The Orbitron site is located at 901 South Main Street in Delphos, Allen County, Ohio (Figure 1). The site consists of a 100,000 ft² main building, an oil house (building 13) of 1320 ft², sheds of 2400 (building 12) and 3600 ft² (building 14), four pole barns, and a loading dock area (Figure 2). The main building is comprised of eleven smaller buildings (buildings 1-11 on Figure 2) which serve as production areas, tool rooms, and packaging areas as well as office and lounge space. Residences are located 50 feet to the north of the site. Local industries border the facility on the east and south perimeters. South Main Street and a large field border the facility on the west.

The city of Delphos is in the extreme northwestern corner of Marion Township, in the northwest corner of Allen County. The gentle topography in this area is the result of smooth-surfaced glacial ground moraine deposits of unsorted and unstratified clay, silt, and sand. Delphos is within the northeast-flowing Auglaize River drainage system. Delphos proper is situated on a narrow strandline of the former Lake Maumee, a precursor to the modern Lake Erie. The thickness of glacial deposits is approximately 50 feet, over a 160- to 400-foot thick unit of the Monroe formation dolomite (Lower Devonian Age). Several stone quarries in the area extract crushed rock from the Monroe formation.

The main building occupies the vast majority of the site property, with the remaining area covered with grass or asphalt. The east perimeter of the main building area is fenced with a 6-foot chain link and barbed wire fence. The gate to this area is padlocked to prevent easy access to this portion of the facility.

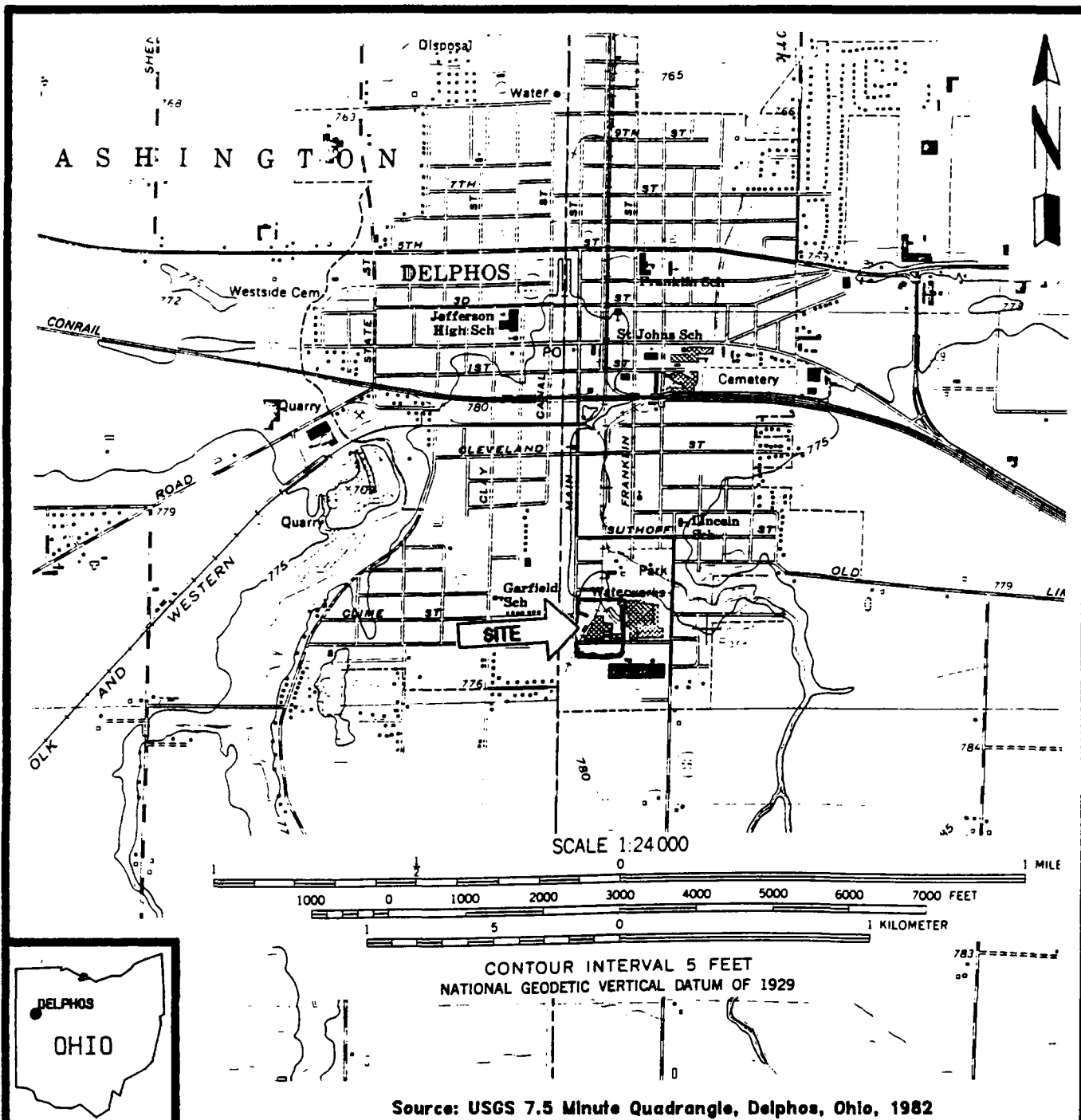


FIGURE 1
SITE LOCATION MAP
ORBITRON SITE
DELPHOS, ALLEN COUNTY, OHIO



**ecology
 &
 environment**

DRAWN BY
F. DACTLER

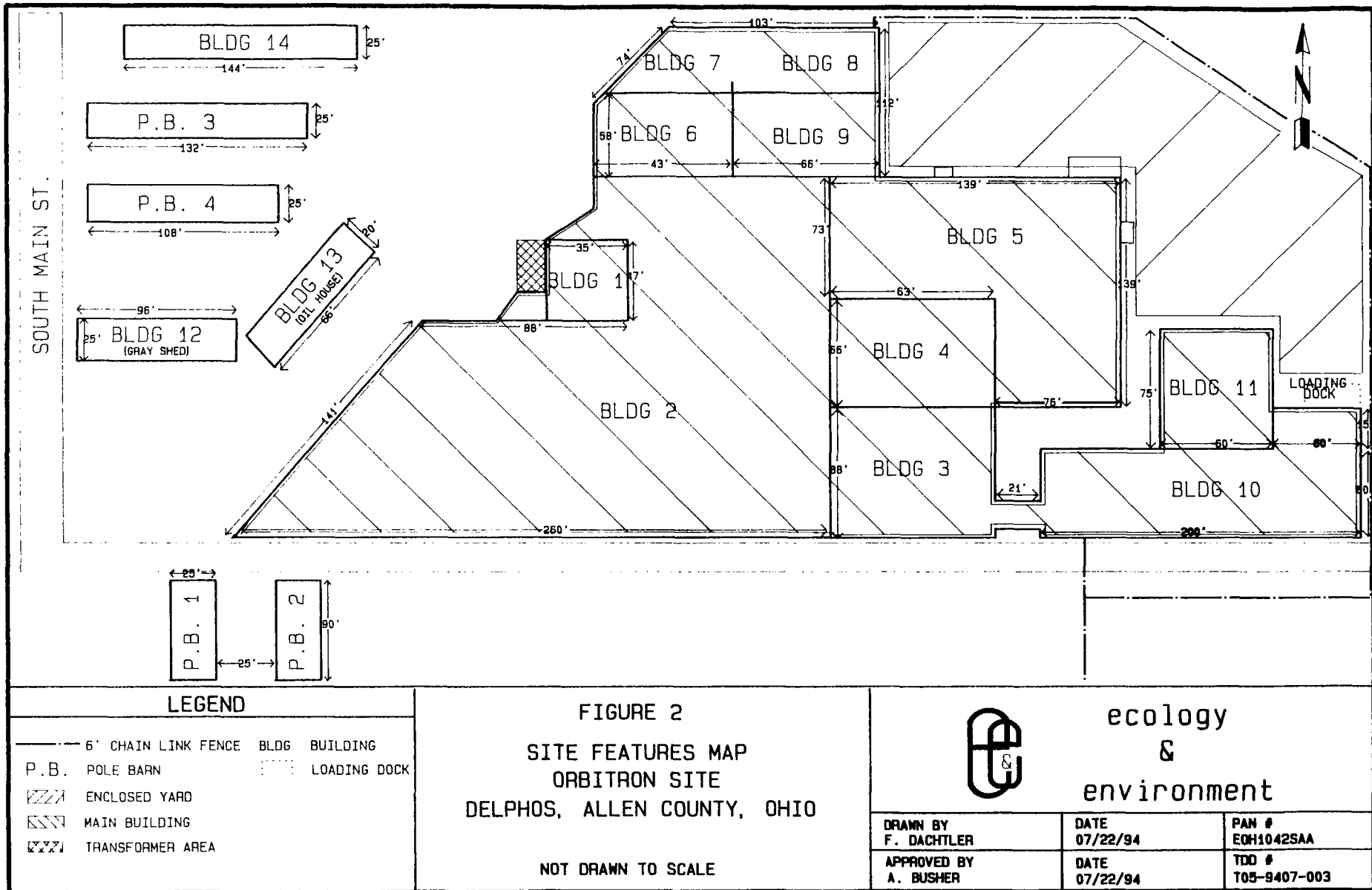
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DATE
07/22/94

TDD #
T05-9407-003



2.2 Site History

Orbitron, a daughter plant of Orbitron Industries, Inc. of Mishawaka, Indiana, was a manufacturer of polyethylene (poly) drums and tanks until October of 1993. The property has since been for sale through Yocum Realty agent Frank Caprilla. The main building, sheds, and pole barns contain approximately 200 drums and containers. An inventory conducted by the Ohio EPA (OEPA) revealed drums with labels indicating the possible presence of flammable, reactive, and corrosive materials. Several of these drums were observed deteriorated, bulging and/or leaking their contents on to the ground.

On June 2, 1994, OSC Mike Gerber of the OEPA Northwest District Office (NWDO) met with Chief Seavers of the Delphos Fire Department (FD) at the Orbitron facility in response to leaking drums reported by the Allen County Emergency Management Department. Three 55-gallon drums containing an unknown black substance had leaked and migrated down gradient across a gravel/soil drive way on the south side of the facility. The Delphos FD installed an earthen dike around the spilled material to prevent further migration. OSC Gerber and Chief Seavers also observed areas on-site which contained asbestos and other containers labeled as flammable, oxidizing, and corrosive materials. Four empty drums marked radioactive were checked with the OEPA radiation meter and showed no readings over background levels.

That afternoon, OSC Gerber contacted Orbitron company representative Troy Walker who stated that the wastes at the old facility were going to be disposed of soon. He informed Gerber that Cousins Waste Control (Cousins) had already been contracted to arrange for this disposal and that Cousins sampled some of the drums located inside the plant. However, Walker was not sure if the drums on the south side of the facility had been sampled. Gerber provided Walker with the names of two clean-up contractors who could assist Orbitron in cleaning the contaminated area. Orbitron hired Interdyne Clean-up Services (Interdyne) to respond to the site immediately. Before leaving the site, OSC Gerber met with Chris Cotterill of Interdyne, who stated that he would have crews out that day to clean up the spilled material.

The spill was cleaned up and contaminated materials were put into 55- and 85-gallon overpack drums and left on-site. However, due to the large number of drums and containers still remaining on-site, the OEPA contacted the U.S. EPA and requested assistance with the investigation of site conditions. On July 7, 1994, the TAT was tasked by U.S. EPA OSC Steve Renninger to conduct a site assessment at the Orbitron site.

3.0 SITE ACTIVITIES

3.1 Site Reconnaissance

On July 19, 1994, TAT members (TATMs) Frank Dachtler, Sylvia Wong, and Nazeer Uddin mobilized equipment and arrived at the Orbitron site at 0715 hours. Already present on-site were U.S. EPA OSC Steve Renninger; Jim Ottarson of the OEPA, NWDO; Frank Caprilla of Yocum Realty; Cousins representatives Shirley Fitch-Thorzynski and her associate.

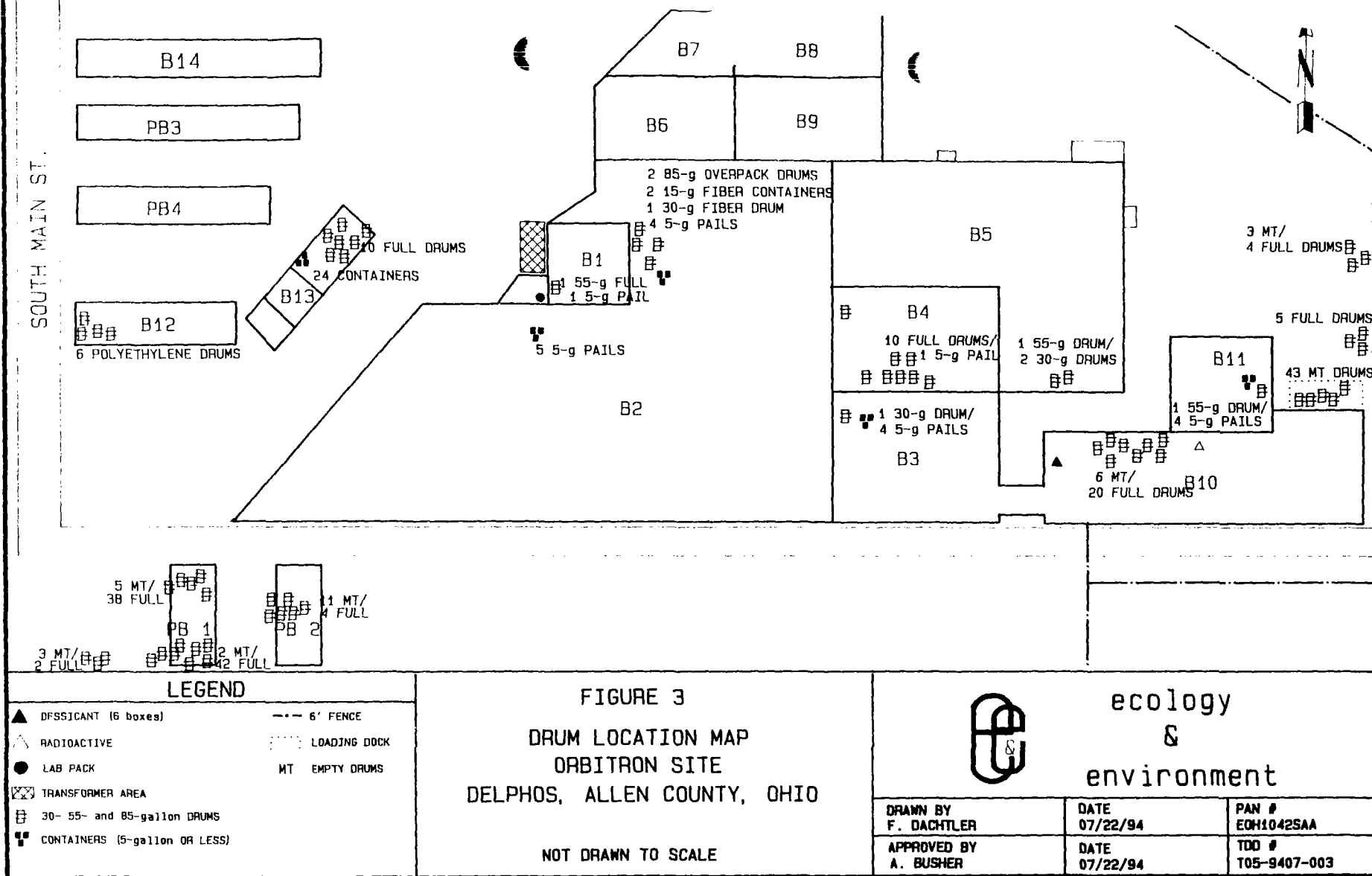
U.S. EPA, OEPA, Cousins, and TAT personnel completed a walk through of the facility. TAT personnel conducted a site reconnaissance which included air monitoring using a Microtip 2000-HL photoionization detector (PID), a combustible gas indicator (CGI), and a Victoreen Thyac III radiation meter. No readings above background levels in the breathing zone were detected on any of the equipment during the site reconnaissance inspection. U.S. EPA, OEPA, and TAT personnel also completed a drum and container inventory, and videotaped and photographed site conditions during the reconnaissance inspection. Photographs of the site are included as Appendix A of this report.

3.2 Site Observations

The main complex of buildings is an approximately 100,000 ft² structure of brick, wood, and steel construction. The east portion of the site, which is adjacent to private residences, is the only portion of the site which is enclosed by a fence. Only a few of the facility doors are secured and several of the windows had been broken. The pole barns, oil house, sheds, and transformer areas border the west and south sides of the main building complex and are completely accessible. An outside area along the west side of building 1 contained four transformers in fair condition. The area was enclosed by a 6-foot picket fence.

Several 55-gallon drums were observed within the fenced areas, and in the pole barns and shed areas. Approximately two hundred full and one hundred and ten empty drums and containers were observed throughout the site. Drums in several areas of the building were observed to be leaking and/or bulging. Drum labels indicated the presence of incompatible materials in close proximity to each other. Acid containing drums were near base drums, and xylene containing materials near oxidizers. Figure 3 indicates approximate locations of drums and containers.

Pole barns: Four pole barns were located on-site. Pole barn 1 (PB1) contained approximately eighty-two full and 10 empty 55-gallon drums in 3 separate clusters (Figure 3). In the area



surrounding the location of the June 2, 1994, spill which was investigated by the Delphos FD. Four 85-gallon overpacks and five 55-gallon steel 17-H drums containing the contaminated soil and debris from the spill were among the drums inventoried at this location. The drums were stacked and were unstable. The area to the south of PB1 was cluttered with wood and metal debris, pieces of poly product, and heavy brush. Labels indicated the presence of: isopropyl alcohol, UN 1219; methylethyl ketone (MEK); roof coatings; and other materials labelled "FLAMMABLE". Hand written markings also indicated the presence of used MEK.

Pole barn 2 (PB2) contained 11 empty and 4 full 55-gallon steel drums. The area was scattered with debris much like the area of pole barn 1 but drums were more easily accessible. Drum labels indicated the presence of MEK, UN 1993, and isopropyl alcohol, anhydrous. Both pole barns were about 50 feet away from the main building and about 25 feet from each other. Pole barns 3 and 4 (PB3 and PB4, respectively) were empty.

Main Building: The main building consists of eleven smaller buildings (buildings 1 thru 11 on figures). Building 1 (B1) the reception area, contained one 55-gallon plastic drum full of wood, and miscellaneous plastic debris. A 5-gallon pail of unknown contents sat on the floor approximately 10 feet from the closet. A cardboard box lab pack containing six 8-oz. bottles of "quaternary ammonium compound in isopropanol", was also found. Adjacent to this room, in building 1, was a storage room containing three 5-gallon pails of unknown contents.

Building 2 (B2) is a approximately 45,000 ft². The largest of the eleven buildings, it is divided into several sections by temporary walls. There are a number of tool shop areas in this building. The building contains mostly wood, cardboard, and polyethylene debris. Five 5-gallon pails of unknown contents were grouped in the tool shop area adjacent to building 1. A diked area along the west wall of the building, directly east of building 1, contained 5 drums and four 5-gallon pails. Two of the drums were 55-gallon polys labelled as "CORROSIVE". A sample was taken from one of the drums and submitted to the lab for analysis. Field results show a pH of 1 to 2 Standard Units (S.U.). A 5-gallon container also marked "CORROSIVE" and labelled "sodium hydroxide solution" was also sampled.

Building 3 (B3), referred to as the shelf room, is approximately 5500 ft² and is located on the south side of the facility, east of building 1. This room contained four 5-gallon pails and one 30-gallon steel drum with unknown contents.

Building 4 (B4) is approximately 4158 ft² and is located directly north of B3. Ten full 55-gallon steel drums and one 5-

gallon pail line the southern-most wall. Label information was not available for these drums and containers.

Building 5 (B5), is referred to as the box room due to the several stacks of cardboard boxes stored here. Two empty 30-gallon drums and one 55-gallon steel drum labeled "caustic soda" were found near the southeast corner of the building in close proximity to the boxes.

Buildings 6, 7, 8, and 9 were empty except for some scattered wood and metal debris.

Building 10 (B10) is approximately 1200 ft² and is located southeast of buildings 1 thru 9. Six 50 pound boxes of desiccant are stacked next to the doorway along the west wall and labelled "OXIDIZER". Field oxidizer tests performed on the material showed positive results. Twenty full and six empty 55-gallon drums are located along the north wall of the building. Some of those drums were leaking an unidentifiable black viscous liquid and several of the drums appeared to be bulging. One drum to the east of the 26 drums was labelled "RADIOACTIVE", however, no readings above background were detected with the radiation meter.

Building 11 (B11) is approximately 4500 ft² and appears to be a more recent addition to the entire structure. This steel and fiberglass structure is north of building 10 and contains four 5-gallon pails, and one 55-gallon drum which is about 25% full of a white powder.

Building 12 (B12) is a 2400 ft² gray shed located approximately 80-feet west of the main building. The door on the north side of the shed is deteriorated and slides open easily. Inside the shed at the west end, are six 55-gallon poly drums stacked among a pile of wood and plastic debris. The drums are from 30-60% full of a clear liquid. A field pH test performed on the liquid showed 7 S.U.

Building 13 (B13), referred to as the oil house, is an enclosed brick structure approximately 1320 ft², and about 30-feet west of the main building. Ten full 55-gallon steel drums were at the north end of the building. Some of the drums were open or the bung was loose, and several of them were leaking product. The PID showed readings of >2500 ppm organic vapors when placed near the opening of some of the drums. Labels indicated the presence of: ortho-xylene; isopropyl alcohol, anhydrous; "Monolec" power fluid; and other materials labelled as "FLAMMABLE". Twenty-four small containers were scattered throughout the building and appeared to contain paints and machine lubricating materials.

Building 14 (B14) is a wooden shed approximately 144-feet by 25-feet, and can be accessed by either the open awning at the

west end of the shed or through a door on the south side. Only a few unused polyethylene drums were found in this building.

The loading dock area, located on the north side of B10, contains approximately 43 empty drums staged here by Cousins. Five full 55-gallon drums were stacked against the fence along the east perimeter of the loading area. Fifteen feet directly north of these drums were four more full 55-gallon steel drums and three empties. Label information from the drums revealed low flash points and/or "FLAMMABLE" liquid.

3.3 Sampling Activities

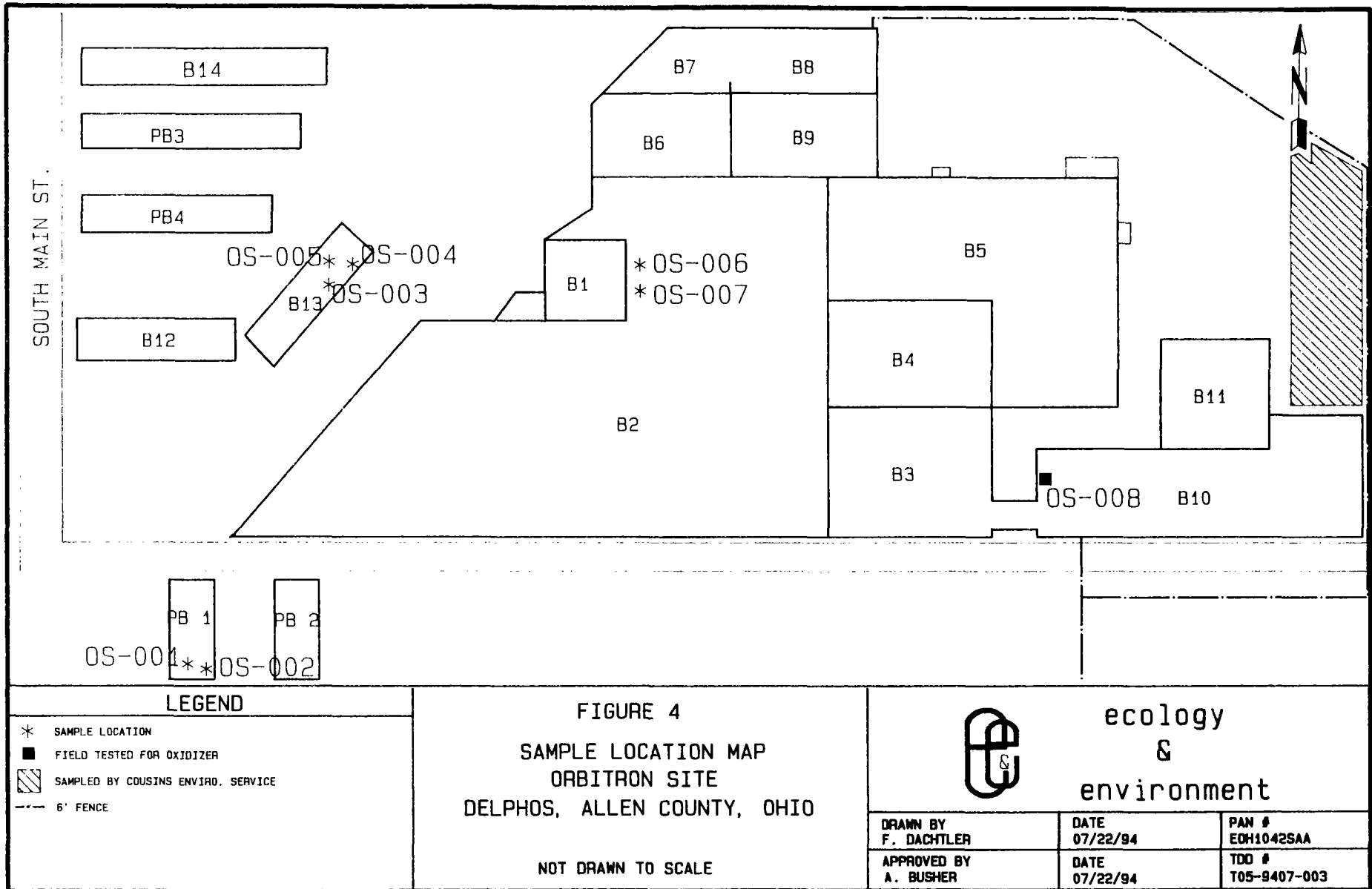
After completion of the initial site reconnaissance, TAT and the U.S. EPA OSC discussed their observations, as well as the proposed sampling scheme. OSC Renninger requested the TAT to collect seven samples to be analyzed for flash point, pH, and solvents.

The TAT conducted drum and container sampling in level B protection, with continuous monitoring of the breathing zone with the PID. Samples were collected with dedicated 1/2" diameter glass drum thieves, or with dedicated plastic scoops. Sample aliquots were then placed in precleaned 4- or 8- ounce glass jars, which were subsequently sealed with teflon lids and labeled. Outer sampling gloves were changed between sampling points. No readings above background levels were detected in the breathing zone on the PID during the drum and container sampling.

Drum sample OS-001 was a viscous, amber colored liquid collected from a full 55-gallon steel drum. This drum was located in pole barn 1 at the south end of the barn (Figure 4). Drum sample OS-002 was also a viscous, amber liquid from a full 55-gallon steel drum. This drum was also located in pole barn 1 near the drum marked OS-001.

Samples OS-003 thru OS-005A and OS-005B were collected in building 13, the oil house. All were a black liquid collected from three different, full 55-gallon drums. All three of the drums gave readings of >2500 ppm on the PID when held near the drum openings. "Used solvents" was written on the side of drum marked OS-004.

Drum sample OS-006 was a clear, colorless liquid collected from a 55-gallon poly drum. This drum was located in the diked area along the west wall of building 2. The drum was labelled "Cobalt sulfate, potassium bisulfide, H₂O". Material from this drum was field tested for pH which showed a result of 1 to 2 S.U. Drum sample OS-007 was a yellowish, granular solid scraped from the opening of a 5-gallon container. The container was also located in the diked area and labelled "Potassium hydroxide, sodium hydroxide, Alkaline liquid, n.o.s, NA 1719."



Sample OS-008 was a white, powdery solid collected from the boxes labelled "OXIDIZER", desiccant, in building 10. This sample was field tested by the TAT to determine if it exhibited oxidizer characteristics. After the TAT determined that the material tested positive for oxidizers, OSC Renninger directed that the sample not be sent in for analysis.

Upon completion of the sampling actions, samples were decontaminated, labelled and packaged according to E & E and U.S. EPA protocols. TAT personnel conducted dry decontamination activities and the expended personal protective equipment (PPE) was bagged and left inside the building, as directed by the OSC. U.S. EPA, OEPA, Delphos Fire Department and TAT personnel departed the site at 1300 hours.

On July 20, 1994, at 1420 hours, TATM Frank Dachtler relinquished the seven samples to EnviroTest, Inc. (EnviroTest) labs in Maple Heights, Ohio. The chain-of-custody form was completed at this time. Analysis of two samples for pH, SW-846 Method 9040; six samples for flash point, SW-846 Method 1010; and one sample for a solvent scan, SW-846 Method 8240, with a 1-week verbal turnaround was requested under TDD# T05-9407-805.

4.0 ANALYTICAL RESULTS

Analytical results from EnviroTest revealed the presence of low pH, low flash points and materials containing xylenes. A summary of the results from EnviroTest are included as Table 1 and the analytical review memos for these results are included as Appendix B.

Samples OS-001, OS-002, OS-003, OS-004, OS-005A, and its duplicate OS-005B were analyzed for flash point. All six samples revealed flash points well below 140°F. Sample OS-003 was also submitted for a solvent scan which revealed a composition of greater than 99% xylenes. Samples OS-006 and OS-007 were analyzed for pH and revealed results of 2.08 S.U. and 9.48 S.U., respectively.

TABLE 1
ANALYTICAL SUMMARY
for
THE ORBITRON SITE
DELPHOS, ALLEN COUNTY, OHIO

SAMPLE ID	ANALYSIS	RESULT
OS-001	flashpoint	< 70°F
OS-002	flashpoint	93°F
OS-003	flashpoint	95°F
OS-003	solvent scan	> 99% xylenes
OS-004	flashpoint	103°F
OS-005A	flashpoint	< 70°F
OS-005B	flashpoint	< 70°F
OS-006	pH	2.08
OS-007	pH	9.49

* NOTE: Samples collected by TAT and analyzed on July 26, 1994 by EnviroTest, Inc. located in Maple Heights, Cuyahoga County, Ohio, under analytical TDD# T05-9407-805.

5.0 DISCUSSION OF POTENTIAL THREATS

The conditions present at the site may constitute a threat to public health and the environment based on the considerations set forth in the National Contingency Plan (NCP), 40 CFR Section 300.415 (b) (2), which include, but are not limited to, the following:

- o Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;

The Orbitron site is located in a predominately residential area. The closest residence is less than 50 feet from the facility. Observations made during the site assessment indicated frequent trespassing and vandalism. Broken windows and open doorways were noticed on several of the buildings.

The buildings at the Orbitron site contain drums and containers of caustic soda, also known as sodium hydroxide and MEK. Sodium hydroxide and MEK are designated as a CERCLA hazardous substances as defined in 40 CFR Part 302.4.

Materials sampled by TAT at the Orbitron site may be considered hazardous due to their characteristic of ignitability. Six samples were ignitable, as defined in the NCP, 40 CFR Section 261.21 (a) (1): "A solid waste exhibits the characteristic of ignitability if...It is a liquid..." that "...has a flash point less than 140°F, as determined by...a Pensky-Marten Closed Cup Tester..."

- o Hazardous substances or pollutants or contaminants in drums, tanks, or other bulk storage containers, that may pose a threat of release;

Many of the drums are either open, in a deteriorating state, or have already broken open and spilled their contents onto surrounding drums or the ground. Areas of discoloration on concrete floors and the ground around clusters of drums suggest that either liquid contents have leaked from the drums or that solid contents have mixed with water and flowed from the drums.

- o Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The Orbitron facility is located in the western Ohio area. The weather in this area includes heavy snow and rainfall, and sub-freezing temperatures. Temperatures in the summer can easily rise into the 90s. Characteristic of temperate climates, the area experiences several freeze-thaw cycles during the fall and spring seasons. The Orbitron facility is in various states of

disrepair. Broken windows and leaking ceilings allow drums and containers stored inside the facility to be exposed to rain and snow, and to be effected by the freeze-thaw cycle. Most of the drums are located in the pole barn areas and are constantly exposed to weather conditions. Regular contraction and expansion of steel and poly drums in response to the freeze-thaw cycle hastens the deterioration of drums and increases the likelihood of a release.

- o Threat of fire or explosion;

The presence of wastes with flash points below 140°F at the Orbitron site increase the potential of a fire or explosion at the facility.

Several drums of MEK, xylene and other solvents are known to be inside or around the facility. These liquids exhibit the characteristic of ignitability, and are highly reactive in the presence of oxidizers. Laboratory analysis revealed flash points well below 140°F. In the event of a fire, these materials have the potential to give off toxic carbon monoxide which could be released into the environment and affect local residents.

6.0 SUMMARY

On July 19, 1994, TAT completed site assessment activities at the Orbitron Industries site in Delphos, Allen County, Ohio. A total of eight samples were collected and laboratory-analyzed for pH, flash point, and solvents. The presence of these materials at the site pose threats to human health and the environment as outlined above, and as defined in the NCP.

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SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: SOUTH DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: POLE BARN 1 ON THE SOUTH SIDE OF THE FACILITY. POLE
BARN 2 IS SEEN TO THE LEFT.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: SOUTHEAST DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: AREA NEAR POLE BARN 1 WHERE ORIGINAL SPILL TOOK
PLACE.



SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH1042SAA**
DIRECTION: EAST **DATE: 07/19/94** **PHOTOGRAPHER: SW**
DESCRIPTION: DRUMS OF SUSPECTED FLAMMABLE MATERIALS LOCATED AT THE SOUTH END OF POLE BARN 1.



SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH1042SAA**
DIRECTION: WEST **DATE: 07/19/94** **PHOTOGRAPHER: SW**
DESCRIPTION: TAT MEMBERS IN LEVEL B PROTECTION OPENING DRUMS IN POLE BARN 1 AREA.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: NORTH DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: SAMPLE POINT OS-001 AND FULL DRUM MARKED "USED MEK"
UNDER POLE BARN 1. SAMPLE POINT OS-002 IS LOCATED IN THE
BACKGROUND.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: NORTH DATE: 07/19/94 PHOTOGRAPHER: FD
DESCRIPTION: FULL DRUMS OF FLAMMABLE LIQUIDS LOCATED IN BUILDING
13. SAMPLE POINT OS-003 WAS COLLECTED HERE AND ANALYZED FOR
FLASHPOINT AND VOC'S. SAMPLE POINT OS-005 IS TO LEFT OF OS-003.



SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH10428AA**
DIRECTION: EAST **DATE: 07/19/94** **PHOTOGRAPHER: FD**
DESCRIPTION: DRUMS IN BUILDING 13. SAMPLE POINT OS-004 IS LOCATED
IN THE BACKGROUND.



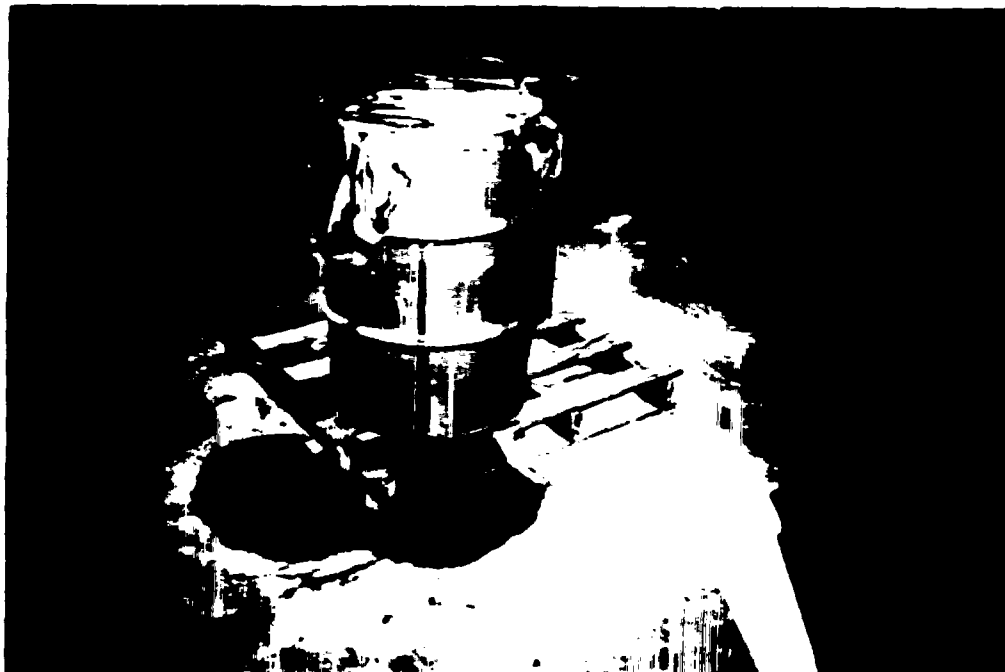
SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH10428AA**
DIRECTION: NORTH **DATE: 07/19/94** **PHOTOGRAPHER: SW**
DESCRIPTION: LAB PACK OF FLAMMABLE LIQUIDS FOUND IN RECEPTION AREA
OF BUILDING 1.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
 DIRECTION: WEST DATE: 07/19/94 PHOTOGRAPHER: SW
 DESCRIPTION: TAT MEMBERS COLLECTING SAMPLE OS-007 FROM CONTAINER
 MARKED "CORROSIVE" IN BUILDING 1. SAMPLE OS-006 WAS COLLECTED FROM
 THE BLUE POLY DRUM TO THE RIGHT.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
 DIRECTION: WEST DATE: 07/19/94 PHOTOGRAPHER: SW
 DESCRIPTION: BOXES OF DESICCANT MARKED "OXIDIZER" LOCATED IN
 BUILDING 10. SAMPLE OS-008 WAS COLLECTED AND FIELD TESTED POSITIVE
 FOR OXIDIZING POTENTIAL.



SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH1042SAA**
DIRECTION: NORTHWEST **DATE: 07/19/94** **PHOTOGRAPHER: SW**
DESCRIPTION: LEAKING DRUMS LOCATED IN BUILDING 10.



SITE NAME: ORBITRON **TDD: T059407003** **PAN: EOH1042SAA**
DIRECTION: NORTHWEST **DATE: 07/19/94** **PHOTOGRAPHER: SW**
DESCRIPTION: FULL 55-GALLON DRUMS ALONG NORTH WALL OF BUILDING 10.



SITE NAME: ORBITRON
DIRECTION: NORTHWEST
DESCRIPTION: EMPTY DRUM
LOCATED IN BUILDING 10.

TDD: T059407003
DATE: 07/19/94

PAN: EOH10428AA
PHOTOGRAPHER: SW

LABELED "RADIOACTIVE MATERIAL, NOS"



SITE NAME: ORBITRON
DIRECTION: EAST

TDD: T059407003
DATE: 07/19/94

PAN: EOH10428AA
PHOTOGRAPHER: SW

DESCRIPTION: EMPTY FIBER DRUM AND BOXES LOCATED IN BUILDING 5.
OPEN DOORS MAKE THE FACILITY ACCESSIBLE.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: EAST DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: APPROXIMATELY 43 EMPTY DRUMS STAGED ON LOADING DOCK
BEHIND BUILDING 10 BY COUSINS ENVIRONMENTAL FOR ORBITRON
INDUSTRIES.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: NORTH DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: FULL AND EMPTY DRUMS LOCATED ALONG INTERIOR OF FENCE
ON EAST SIDE OF THE FACILITY. COUSINS ENVIRONMENTAL SAMPLED THE
FULL DRUMS.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: EAST DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: FULL DRUM LABELED ISOPROPYL ALCOHOL ANHYDROUS, AND
"FLAMMABLE LIQUID" LOCATED NEAR POLE BARN 2.



SITE NAME: ORBITRON TDD: T059407003 PAN: EOH1042SAA
DIRECTION: SOUTH DATE: 07/19/94 PHOTOGRAPHER: SW
DESCRIPTION: OPEN DOOR TO BUILDING 12.



SITE NAME: ORBITRON

TDD: T059407003

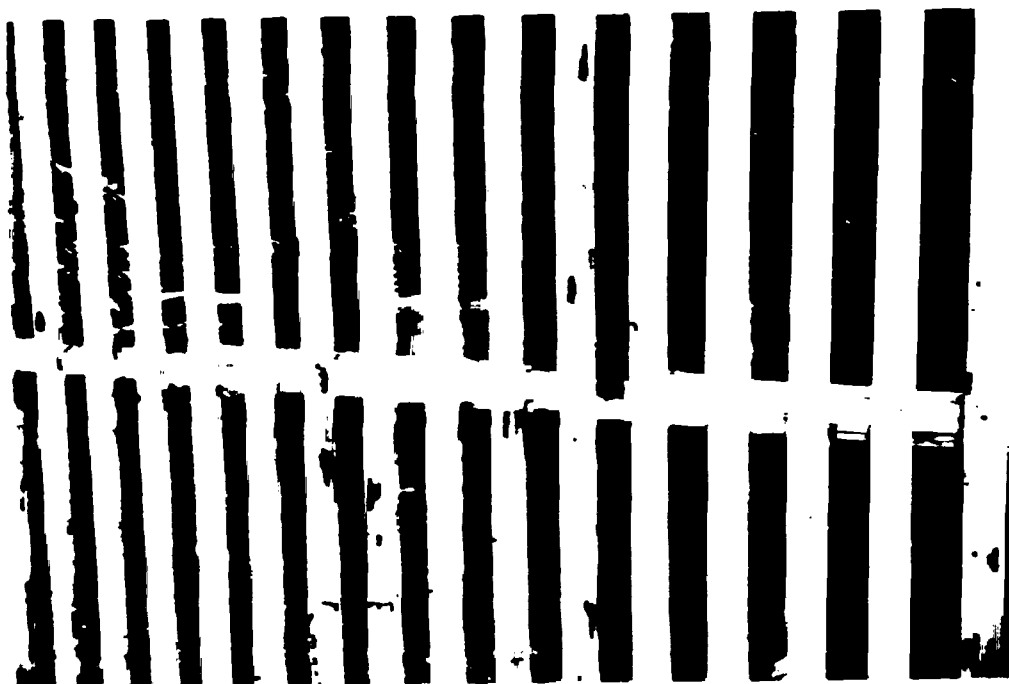
PAN: BOH1042SAA

DIRECTION: WEST

DATE: 07/19/94

PHOTOGRAPHER: SW

DESCRIPTION: SOUTH SIDE OF BUILDING 14.



SITE NAME: ORBITRON

TDD: T059407003

PAN: BOH1042SAA

DIRECTION: NORTHEAST

DATE: 07/19/94

PHOTOGRAPHER: SW

**DESCRIPTION: TRANSFORMERS LOCATED ON THE WEST SIDE OF THE FACILITY
NEAR BUILDING 1.**

B





ecology and environment, inc.

6777 ENGLE ROAD, CLEVELAND, OHIO 44130, TEL. (216) 243-3330

International Specialists in the Environment

M E M O R A N D U M

DATE: August 8, 1994

TO: Frank C. Dachtler, TAT Project Manager, E & E, Inc.,
Cleveland, OH

FROM: Emily Landis, TAT Geochemist, E & E, Inc.,
Cleveland, OH

THRU: Anne A. Busher, ATATL, E & E, Inc., Cleveland, OH

SUBJ: **Volatile Organics Data Quality Assurance Review for
the Orbitron Site, Delphos, Allen County, Ohio**

RE: Analytical TDD: T059407805 Project TDD: T059407003
Analytical PAN: EOH1042AAA Project PAN: EOH1042SAA

The data quality assurance review of one discrete sample, collected at the Orbitron site on July 19, 1994, is now complete. The sample was submitted to EnviroTest, Inc., of Maple Heights, Ohio, to be analyzed for target compound list (TCL) volatile organic compounds. EnviroTest sub-contracted the work to American Environmental Laboratories of Bedford Heights, Ohio (AEL). AEL analyzed the sample by purge-and-trap gas chromatography/mass spectrometry, following EPA Method 8260.

Data Qualifications:

I. Sample Holding Time: Acceptable.

EnviroTest, Inc. received the sample on July 20, 1994, within 24 hours of collection. The samples were analyzed by the sub-contractor laboratory on July 25, 1994. The sample was thus analyzed within the 14-day holding time limit.

II. GC/MS Tuning Criteria: Not Evaluated.

III. Initial and Continuing Calibrations: Acceptable.

For the initial calibrations on June 24 and July 22, 1994, all mean response factors (RFs) were greater than zero. The percent relative standard deviations (%RSD) of the relative

RRFs (RRFs) in the initial calibration were less than or equal to the control limit of 30% RSD; all VOA compounds had RRFs of at least 0.05.

The percent difference (%D) for all VOA compounds was less than or equal to 25%, except for 2-chloroethyl-vinylether (29% D). However, this compound was not detected in the samples, so no action is taken.

All retention times and Internal Standards were within -50% or +100% of the associated standard, as required.

IV. Error Determination: Precision Not Determined.

V. Blanks: Acceptable.

The method blank contained no VOA compounds above the detection limit.

VI. Compound Identification: Acceptable.

The relative retention times (RRTs) for o- and m,p-xylenes (reported as total xylenes) were within 0.06 units of the standard, as required.

VII. Quantitation/Detection Limits: Acceptable.

Sample dilution and raw data units were accounted for in the reported results.

VIII. Optional QC Checks: Acceptable.

Surrogate Recoveries - Surrogate compound recoveries were within control limits.

Overall Assessment of Data:

This data evaluation is based upon guidelines set forth in OSWER Directive 9360.4-01 (1990). With the information provided, the results are acceptable for use as reported.



ENVIROTEST, INC.

ENVIRONMENTAL TESTING SERVICE CO.

3550 Warrensville Center Road • Suite 104 S • Shaker Heights • Ohio 44122

216-921-0066 • Fax 216-921-0061

*Ecology and Environment, Inc.
6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Dachler*

SAMPLE = OS-003

LAB. = 940531

ANALYTE	METHOD	RESULT	DETECTION LIMIT
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*Volatile Organic Compound
List 8240 (EPA Method 8260)*

Acetone		Less than 100 mg L	100 mg L
Acetonitrile		Less than 100 mg L	100 mg L
Allyl chloride		Less than 100 mg L	100 mg L
Benzene		Less than 100 mg L	100 mg L
Benzyl chloride		Less than 100 mg L	100 mg L
Bromodichloromethane		Less than 100 mg L	100 mg L
Bromoform		Less than 100 mg L	100 mg L
Bromomethane		Less than 100 mg L	100 mg L
2-Butanone		Less than 100 mg L	100 mg L
Carbon disulfide		Less than 100 mg L	100 mg L
Carbon tetrachloride		Less than 100 mg L	100 mg L
Chlorobenzene		Less than 100 mg L	100 mg L
Chlorodibromomethane		Less than 100 mg L	100 mg L
Chloroethane		Less than 100 mg L	100 mg L
2-Chloroethyl vinyl ether		Less than 100 mg L	100 mg L
Chloroform		Less than 100 mg L	100 mg L
Chloromethane		Less than 100 mg L	100 mg L
Chloroprene		Less than 100 mg L	100 mg L
1,2-Dibromo-3-chloropropane		Less than 100 mg L	100 mg L
1,2-Dibromoethane		Less than 100 mg L	100 mg L
Dibromomethane		Less than 100 mg L	100 mg L
1,4-Dichloro-2-butene		Less than 100 mg L	100 mg L
Dichlorodifluoromethane		Less than 100 mg L	100 mg L
1,1-Dichloroethane		Less than 100 mg L	100 mg L
1,2-Dichloroethane		Less than 100 mg L	100 mg L
trans-1,2-Dichloroethene		Less than 100 mg L	100 mg L
1,2-Dichloropropane		Less than 100 mg L	100 mg L
cis-1,3-Dichloropropene		Less than 100 mg L	100 mg L

<i>trans</i> -1,3-dichloropropene	Less than 100 mg/L	100 mg/L
Ethylbenzene	Less than 100 mg/L	100 mg/L
Ethyl methacrylate	Less than 100 mg/L	100 mg/L
2-Hexanone	Less than 100 mg/L	100 mg/L
Isoputyl alcohol	Less than 100 mg/L	100 mg/L
Methacrylonitrile	Less than 100 mg/L	100 mg/L
Methylene chloride	Less than 100 mg/L	100 mg/L
Methyl iodide	Less than 100 mg/L	100 mg/L
Methyl methacrylate	Less than 100 mg/L	100 mg/L
4-Methyl-2-pentanone	Less than 100 mg/L	100 mg/L
Pentachloroethane	Less than 100 mg/L	100 mg/L
Propionitrile	Less than 100 mg/L	100 mg/L
Styrene	Less than 100 mg/L	100 mg/L
1,1,1,2-Tetrachloroethane	Less than 100 mg/L	100 mg/L
1,1,2,2-Tetrachloroethane	Less than 100 mg/L	100 mg/L
Tetrachloroethene	Less than 100 mg/L	100 mg/L
Toluene	Less than 100 mg/L	100 mg/L
1,1,1-Trichloroethane	Less than 100 mg/L	100 mg/L
1,1,2-Trichloroethane	Less than 100 mg/L	100 mg/L
Trichloroethene	Less than 100 mg/L	100 mg/L
1,2,3-Trichloropropane	Less than 100 mg/L	100 mg/L
Vinyl acetate	Less than 100 mg/L	100 mg/L
Vinyl chloride	Less than 100 mg/L	100 mg/L
Xylene (Total)	942130 mg/L	100 mg/L

% Surrogate recovery:

4-Bromofluorobenzene:	74	(74%-121%)
Pentafluorobenzene:	105	(80%-120%)
Trifluorotoluene:	108	(81%-117%)

DATA COMPLETED

4/26/94

APPROVED BY

Lilia Shtarkman

Lilia Shtarkman

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD * *

PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS		Activity Code:	
		TOS-9407-805				* Please choose 1 pH sample and 1 flashpoint (<140°F) sample as duplicate for QC.	
SAMPLERS: (Print Name and Sign)		FRANK DACHTLER <i>[Signature]</i> NAZEER UDDIN <i>[Signature]</i>					
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Analysis:	TAG NUMBERS
OS-001	7/19	0850		X	POLE BARN 1 #1	1x8oz	X
OS-002		0850		X	POLE BARN 1 #2	1x8oz	X
OS-003		0830		X	SHED 1 #3	3x8oz	X X
OS-004		0850		X	SHED 1 #4	1x8oz	X
OS-005A		0915		X	SHED 1 #5A	1x8oz	X
OS-006		0920		X	Bldg. 1 #6 ACID	1x8oz	X
OS-007	Y	0930		X	Bldg. 1 #7 NaOH	1x8oz	X
OS-008B	Y	0915		X	SHED 1 #5B	1x8oz	X
QA LEVEL II TURNAROUND: VERBAL → 7 CAL. DAYS HARDCOPY → 14 CAL DAYS						SEND RESULTS TO: ATTN: FRANK C. DACHTLER Ecology: Environment, Inc. 6777 Engle Rd. Suite N Cleveland, OH 44130 Phone (216) 243-3330 Fax (216) 243-6923	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Ship To: Pick-up by ENVIROTEST, Inc. MAPLE Hts., OH ATTN: Airbill Number Chain of Custody Seal Numbers 170503 & 36197	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)			
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature) Date / Time			

Distribution: White - Accompanies Shipment; Pink - Coordinator Field Files; Yellow - Laboratory File



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M E M O R A N D U M

DATE: August 8, 1994

TO: F. Dachtler, TAT Project Manager, E & E, Cleveland, OH

FROM: Emily Landis, TAT Geochemist, E & E, Cleveland, OH

THRU: Anne A. Busher, ATATL, E & E, Cleveland, OH *AK*

SUBJ: pH and Flashpoint Data Review, Orbitron Site, Delphos,
Allen County, Ohio

RE: Analytical TDD: T059407805 Project TDD: T059407003
Analytical PAN: EOH1042AAA Project PAN: EOH1042SAA

The data quality assurance review of eight samples collected from the Orbitron site on July 19, 1994, is now complete. The samples were submitted to EnviroTest, Inc. of Maple Heights, Ohio, to be tested for pH (OS-006 and -007) and flashpoint (OS-001 through -005A and -005B).

Data Qualifications:

I. Holding Time: Acceptable.

Both pH and flashpoint measurements were taken within 24 hours of receipt by the laboratory.

II. Duplicate Analyses: Acceptable.

For each sample, pH measurements were taken three times. Relative percent differences among three readings on one sample were less than one percent. The result of the duplicate flashpoint test for sample OS-003 was identical to the first result.

III. Instrument Calibration: Acceptable.

The pH meter was calibrated against buffers of 4.0, 7.0, and 10.0 just prior to testing the samples. Para-xylene flashpoint temperatures were within control limits.

Overall Assessment of Data:

This data evaluation is based upon guidelines set forth in OSWER Directive 9360.4-01 (1990). With the data supplied, the results are acceptable for use as reported.



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*Ecology and Environment, Inc.
6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Dachler*

SAMPLE = OS-001

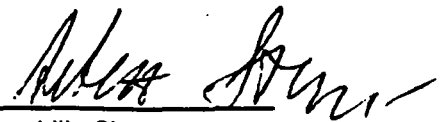
LAB. = 940529

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>Less than 70°F</i>	<i>2°F</i>

DATA COMPLETED

2/26/94

APPROVED BY


Lilia Shtarkman



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6777 Engle Road, Middleburg Heights, OHIO 44130.

Attn.: Frank C. Dachtler

SAMPLE = OS-002

LAB.=940530

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>93°F</i>	<i>2°F</i>

DATA COMPLETED

7/26/94

APPROVED BY

Lilia Shtarkman

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ENVIRONMENTAL TESTING SERVICE CO.

3550 Warrensville Center Road • Suite 104 S • Shaker Heights • Ohio 44122

216-921-0066 • Fax 216-921-0061

*Ecology and Environment, Inc.
6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Dachtler*

SAMPLE = OS-003

LAB. #940531

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>95°F</i>	<i>2F</i>

DATA COMPLETED

2/26/94

APPROVED BY

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ENVIRONMENTAL TESTING SERVICE CO.

3550 Warrensville Center Road • Suite 104 S • Shaker Heights • Ohio 44122

216-921-0066 • Fax 216-921-0061

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6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Dachler*

SAMPLE = OS-004

LAB. = 940532

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>103°F</i>	<i>2°F</i>

DATA COMPLETED 4/26/94 APPROVED BY

Lilia Shtarkman
Lilia Shtarkman



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6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Datchler*

SAMPLE = OS-005 A

LAB.=940533

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>Less than 70°F</i>	<i>2°F</i>

DATA COMPLETED 4/26/94

APPROVED BY *Lilia Shtarkman*
Lilia Shtarkman



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Attn.: Frank C. Dachtler

SAMPLE = OS-006

LAB. = 940534

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>pH</i>	<i>EPA 9040</i>	<i>2.08 SU</i>	<i>0.01 SU</i>

DATA COMPLETED

4/26/94

APPROVED BY

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6777 Engle Road, Middleburg Heights, OHIO 44130.
Attn.: Frank C. Dachler*

SAMPLE # OS-007

LAB. #940535

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>pH</i>	<i>EPA 9040</i>	<i>9.49 SU</i>	<i>0.01 SU</i>

DATA COMPLETED

8/26/94

APPROVED BY

Lilia Shtarkman



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Attn.: Frank C. Dachtler*

SAMPLE # OS-005 B

LAB.#940536

ANALYTE	METHOD	RESULT	DETECTION LIMIT
<i>Flash Point</i>	<i>EPA 1010</i>	<i>Less than 70°F</i>	<i>2°F</i>

DATA COMPLETED 2/26/94 APPROVED BY Lilia Shtarkman
Lilia Shtarkman